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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,139	02/16/2005	Emmanuel Ardichvili	FR 020087	1770
65913	7550	07/07/2008		
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			EXAMINER FOTAKIS, ARISTOCRATIS	
			ART UNIT 2611	PAPER NUMBER
			NOTIFICATION DATE 07/07/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

### Office Action Summary

**Application No.**

10/525,139

**Applicant(s)**

ARDICHVILI ET AL.

**Examiner**

ARISTOCRATIS FOTAKIS

**Art Unit**

2611

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04/09/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-13 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

Claim 11 is objected to because of the following informalities: "*and the second group regrouping a current series of areas and a next series of areas*" should be "*and the second group regrouping **the** current series of areas and **the** next series of areas*". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 2, 4 – 5, 7, 10 and 12 – 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Harju et al ("*A Flexible Rake Receiver Architecture for WCDMA*

*Mobile Terminals"* Digital and Computer Systems Laboratory, Tampere University of Technology, Tampere, Finland, March 20 – 23, 2001)

Re claims 1, 12 and 13, Harju teaches of a receiver for receiving an input signal comprising a series of samples, said receiver comprising one delay line (circular buffer, conclusions, Figs. 2 and 3), characterized in that the delay line is configured to delay said input signal by a series of delays and is divided into a series of delay sub-lines (*It is inherent that a circular buffer includes a delay line that is divided in a series of delay taps or memory locations or memory address*) each being used to write one from the series of samples of said input signal, each of the delay sub-lines including a memory area to receive at least one sample from the series of samples (memory address, highlighted in Fig.3, Page 10), and in that the solution further comprises control means configured to generate read addresses (read I/Q samples, Fig.3) of the samples in the delay sub-lines from the series of samples of the input signal, so that a read address is equal to a difference between a write address of a sample in a delay sub-line of the input signal (circular address generator. Fig. 3) and a delay expressed as a number of sampling periods from the series of delays (offset address registers, Fig. 3, Page 10).

Re claim 2, Harju teaches of the delay line comprising a single series of delay sub-lines (*It is inherent that a delay buffer includes a delay line that is divided in at least a series of delay taps or memory locations or memory address*) (Fig. 3).

Re claim 4, Harju teaches of a delay sub-line is accessible with a frequency twice as fast as the samples of an input signal received by the receiver (equation 2, Page 11).

Re claim 5, Harju teaches of wherein one memory area is associated to one delay sub-line (memory address with an offset, Fig.3).

Re claim 7, Harju teaches of the read addresses of the samples of a series of samples are situated at addresses immediately adjacent or equal to one another (Fig.3).

Re claim 10, Harju teaches of the delay line comprises a position factor (cursor, Fig.3) indicating the position of a reference sample from a series of samples of an input signal in the series of delay sub-lines to which it belongs (Page 10, Fig.3).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3, 6 and 8 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harju et al in view of Medlock et al (US PG-Pub 20020037027).

Re claim 3, Harju teaches all the limitations of claim 1 except of the delay line comprising various series of delay sub-lines.

Medlock teaches of a circular buffer comprising a set of registers. Once data has been stored into memory, a despreading circuit (e.g., a rake receiver), which includes

multiple rake fingers, can access the data. The multiple rake fingers can substantially simultaneously access data in the memory via a selector circuit for each rake finger. Each selector circuit includes multiple multiplexers controlled by a set of select lines. The select lines are controlled by an external controller (Paragraph 0025, Fig.10).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the delay line comprising various series of delay sub-lines to achieve faster processing.

Re claim 6, Harju teaches all the limitations of claim 1 except of that the samples of a series of samples are accessible in parallel in the write mode or read mode in the delay sub-lines. Medlock teaches of the samples of a series of samples are accessible in parallel in the write mode or read mode in the delay sub-lines (Fig.10, 1014a – 1014c).

Re claim 8, Harju teaches all the limitations of claim 3 except of two series of samples are read in parallel. Medlock teaches of two series of samples are read in parallel (Fig.9, Paragraphs 0061 - 0063).

Re claim 9, Harju and Medlock teach all the limitations of claim 8 except of wherein the delay line comprises selection means of a series of delay sub-lines to which belongs one of the two series of samples read as a function of the delay (#1012, Fig.10).

***Allowable Subject Matter***

Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ARISTOCRATIS FOTAKIS whose telephone number is (571)270-1206. The examiner can normally be reached on Monday - Thursday 6:30 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aristocratis Fotakis/

Examiner, Art Unit 2611

/Chieh M. Fan/

Supervisory Patent Examiner, Art Unit 2611